

3.1700 (1041, 1126, 1127)  
3.9120 (1121, 1482, 1395)

AUTHOR: Zhilov, I.N.

TITLE: On the relation between the solar radio emission and geomagnetic activity

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 10, 1961, 46-47,  
abstract 10A345 ("Solnechnyye dannyye", 1960, no. 5, 69-73)

TEXT: Cases of intensification of the radio emission at several frequencies were statistically compared with geomagnetic disturbances (index  $\Sigma K_p$  was assumed as a measure of geomagnetic activity) by the method of superposing the epochs and using the data of observations of the solar radio emission from June 1957 to November 1959, published in the "Solnechnyye dannyye" bulletin. A correlation with geomagnetic activity was considered to be good, if the magnitude of deviation from the quiet Sun flux amounted to  $2 \times 10^{-2} \text{ w/m}^2 \text{ cps}$  and more for frequencies of  $\sim 200 \text{ Mc}$  and  $8 \times 10^{-2} \text{ w/m}^2 \text{ cps}$  and more for 19,000 Mc frequency; at the simultaneous intensification of the flux at different frequencies, the good correlation with geomagnetic activity is attained by selecting the cases of flux intensification, which are lower than the indicated ones by several times. The data

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30262

9/035/61/000/010/009/034  
A001/A101

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S/035/61/000/010/009/034  
A001/A101

On the relation between the solar radio emission ...

on radio emission bursts at a number of frequencies were processed in a similar way (selection of bursts was determined by the magnitude of the maximum instantaneous flux in the burst and the burst duration). Bursts of the continuum type correlate best with intensification of magnetic activity, the most important characteristic of the bursts being their duration, and their intensity occupying the second place in this respect. The presence of bursts at all frequencies lasting more than 5 min correlates well with the geomagnetic activity; shorter bursts show a negative correlation. The good correlation with geomagnetic activity show simultaneous bursts at frequencies of  $\sim 200$  and 500 Mc with the maximum instantaneous magnitude of the flux in the burst being more than  $2 \times 10^{-20}$   $\text{w/m}^2\text{cps}$  and duration of more than 20 min. When bursts at only one frequency of  $\sim 200$  Mc are used, it is better to select bursts with the maximum instantaneous flux value exceeding  $10^{-19} \text{ w/m}^2\text{cps}$  and lasting longer than 120 min. There are 7 references.

W

I. Zhulin

[Abstracter's note: Complete translation]

Card 2/2

3,1800

8/035/61/000/010/018/034  
A001/A101

AUTHORS: Zhigalova, N.N., Zhigalov, L.N.

TITLE: Geoactive longitudes of the Sun

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 10, 1961, 58, abstract 10A418 ("Solnechnyye dannyye", 1960, no. 6, 71 - 76).

TEXT: The authors plotted the curves of longitude distribution of some indices of solar activity, of the magnetic disturbance index, and of number of days with storms and days with absorption in the ionosphere (>8 hours per day). The period from 1955 to 1959 was analyzed. Active longitudes were revealed and their significance was checked by means of criterion of correspondence  $\chi^2$  and criterion t. The authors arrived at the conclusion that active longitudes on the Sun, manifesting in different indices of solar activity, as a rule are not accidental and approximately coincide. Geoactive longitudes are expressed weaker. In the maximum of solar activity, helioactive longitudes are accompanied by increasing geomagnetic activity. The number of such longitudes decreases with moving away from the maximum, and by 1959 helioactive longitudes corresponded to a reduction of geomagnetic activity. There are 5 references.

T. Mandrykina

[Abstracter's note: Complete translation]  
Card 1/1

VA

29725

S/169/61/000/008/046/053  
A006/A101

3,9110 (1121,1482)

AUTHORS: Zhigalov, L.N., Zhigalova, N.N.

TITLE: On the distribution of magnetic activity in the narrow section of East-Arctic longitudes

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 8, 1961, 36, abstract 80252 ("Geomagnetism i aeronomiya", 1961, v. 1, no. 1, 67 - 72)

TEXT: The authors analyze the nature of magnetic disturbance in the narrow section of East-Arctic longitudes ( $170^{\circ}$  -  $230^{\circ}$  eastern longitude) from observation materials of drifting stations "Severnyy Polus" (North Pole), and the Wellen and Cape Shmidt magnetic observatories. The results obtained confirm the spiralshaped distribution of magnetic disturbance maxima during the morning, day, evening and night hours. It is mentioned that the previously assumed second zone of higher magnetic disturbances in the Arctic circumpolar zone does only exist during the summer and the early hours of the local geomagnetic day. It decreases during the winter. 2X

[Abstracter's note: Complete translation]

The authors' summary

Card 1/1

ZHIGALOV, L.V.; RADOVSKIY, M.I.

Scientific ties between Russian and English biologists;  
from the materials of the Archives of the Academy of Sciences  
of the U.S.S.R. Trudy Inst. ist. est. i tekhn. 41:94-111 '61,

(MIRA 15:2)

(Russia—Relations (General) with Great Britain)  
(Great Britain—Relations (General) with Russia)  
(Biologists)

ACC NR: AT6007145

(N)

SOURCE CODE: UR/3148/00/000/004/0030/0034

AUTHOR: Zhigalov, L.N.

ORG: None

TITLE: Some features of the vertical geomagnetic component variations in the arctic ocean

SOURCE: AN SSSR. Mezhdunovostvennyy geofizicheskiy komitet. III razdel programmy MGG: Geomagnetizm i zemnyye toki. Sbornik statey, no. 4, 1960, 30-34

TOPIC TAGS: geomagnetism, geomagnetic disturbance, vertical geomagnetic disturbance, earth current.

ABSTRACT: A strong reverse correlation between the vertical geomagnetic component and ocean depth was revealed by the arctic geophysical data of North Pole-6 (SP-6) drifting observatory station during 1958, far from the auroral zone, Fig. 1. A high negative correlation coefficient (-.86) was found between the ratio of vertical-to-horizonal component changes with a period under 10 minutes, and depth changes, Fig. 2. A discussion utilizing additional data from the SP-5 drifting station for 1955, and from the SP-6 drifting station for 1959 confirm the effect and ascribe it primarily to ocean depth. Additional research, to include observations and consideration of the effects of other variables considered of possible pertinence to the effect, such as ocean salinity and electrical conductivity at depth, water currents, ocean bottom inclines and

Card 1/2

ACC NR: AT6007145

temperatures - is suggested.

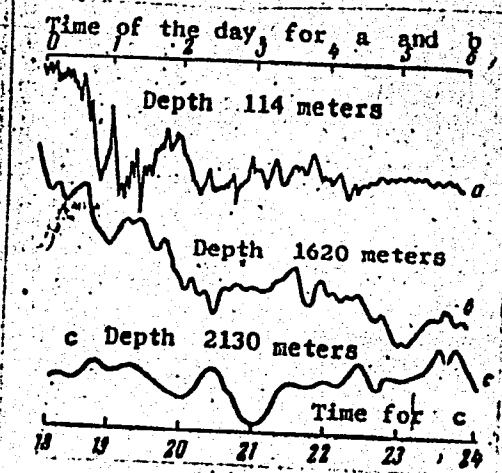


Fig. 1. Record of the vertical geomagnetic component at three depths  
Orig. art. has 4 figures.

SUB CODE: 08/

SUBM DATE: None/

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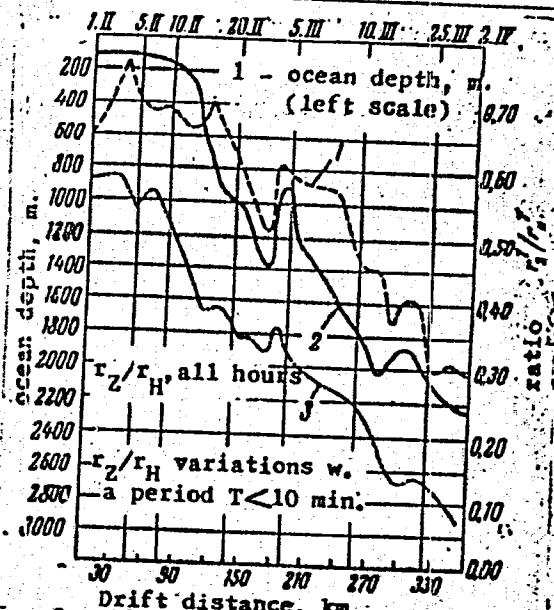


Fig. 2. Similarity of the  $r_Z/r_H$  trend  
with the ocean depth profile

ORIG RFP: 004

ZHIGALOV, M.

Observe the weather minimums strictly. Grazhd. av. 12 no.12:16  
D '55. (MIRA 11:6)  
(Airplanes--Landing)

18(

SOV/127-59-4-8/27

AUTHOR: Zhilov, M.L., Mining Engineer

TITLE: Exploitation Methods in the Mines of Norway

(Sistemy razrabotki na rudnikakh Norvegii.)

From Data in Foreign Literature.(Po dannym  
inostrannoy literatury.)

PERIODICAL: Gornyy zhurnal, 1959, Nr 4, pp 44-46 (USSR)

ABSTRACT: Different mining methods in use in Norway are  
described in this article. There are 3 sets  
of diagrams and 4 English references.

ASSOCIATION: Moskovskiy Gornyy Institut. (The Moscow  
Mining Institute)

Card 1/1

IMENITOV, Vladimir Rafailovich. Prinimali uchastiye: KUTUZOV, D.S.;  
FAYBISHENKO, D.I.; ZHIGALOV, M.L.; AGOSHKOV, M.I., retsenzent;  
MALKIN, I.M., kand. tekhn. nauk, retsenzent; ALBOROV, Z.B.,  
kand. tekhn. nauk, retsenzent; BUBLIS, A.N., gorn. inzh., re-  
tsenzent; EUNIN, A.I., otv. red.; SIFIAGINA, Z.A., red. izd-va;  
SHKLYAR, S.Ya., tekhn. red.

[Highly productive systems of mining thick hard ore deposits]  
Vysokoproizvoditel'nye sistemy razrabotki moshchnykh mest-  
rozhdenii krepkikh rud. Moskva, Gos.snauchno-tekhn.izd-vo lit-  
ry po gornomu delu, 1961. 417 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Agoshkov).  
(Mining engineering)

ZHIGALOV, M.L.

[Investigating the mechanism of the breaking of oversize pieces  
of ore and rock under the effect of the heat of burning thermit]  
Issledovanie mekhanizma razrusheniia negabaritnykh kuskov rudy i  
porody pod deistviem tepla gorissen'ego termita. Moskva, Mosk.  
gornyi in-t im. I.V.Stalina, 1959. 21 p. (MIRA 14:9)  
(Thermit) (Ores—Thermal properties) (Rocks—Thermal properties)

KAPLUNOV, R.P., prof. doktor tekhn. nauk; ZHIGALOV, M.L., inzh.

Secondary crushing of ores by thermit briquettes. Elek. i tepl.  
tiaga 3 no.4:26-28 Ap '59. (MIRA 12:7)

I.Moskovskiy gornyy institut.  
(Ore dressing) (Thermit)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8

ZHIGALOV, M. L., Candidate Tech Sci (diss) -- "Investigation of the secondary granulation of ore using thermite". Moscow, 1959. 20 pp (Min Higher Educ USSR, Moscow Mining Inst im I. V. Stalin, Chair of Working Ore Deposits), 150 copies (KL, No 24, 1959, 136)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8"

ZHIGALOV, M.L., referent, gornyj inzhecer.

Mechanization of filling operations by means of railless equipment  
(from "Mine and Quarry Engineering" no.1, 1955, no.3, 1957).  
Gcr.zhur. no.9:76-77 S '57. (MIRA 10:9)  
(Sardinia--Mine filling)

ZHIGALOV, M.S.

Control of the boiling down of massecuite by the measurement  
of steam expenditure. Sakh. prom. 37 no.5:10-14 My '63.  
(MIRA 16:6)

I. Moskovskiy tekhnologicheskiy institut pishchevoy promysh-  
lennosti.

(Sugar manufacture)

ZHIGALOV, S., professor, doktor tekhnicheskikh nauk.

Scientific arrangement for studying processes involved in grain tempering. Muk.-elev.prom. 20 no.7:25-27 J1 '54. (MLRA 7:8)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.  
(Grain milling)

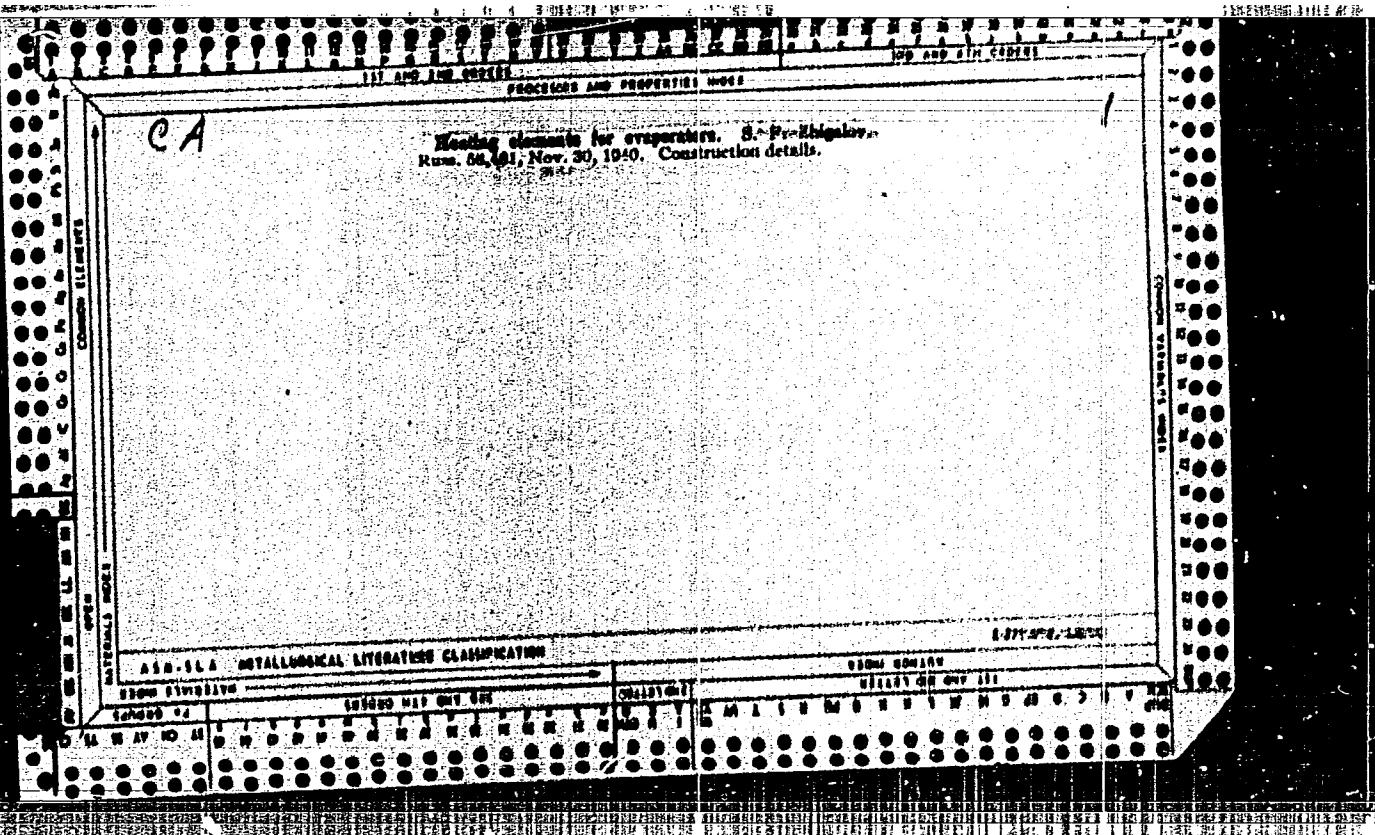
ZHIGALOV, S.A.

Development of new forms in Triticum-Agropyron hybrids. Biul. Sib.  
bot.sada no.5:47-53 '58. (MIRA 12:11)

1. Sibirskiy botanicheskiy sda pri Tomskom gosuniversitete im.  
V.V. Kuybysheva.  
(Triticum-Agropyron hybrids)

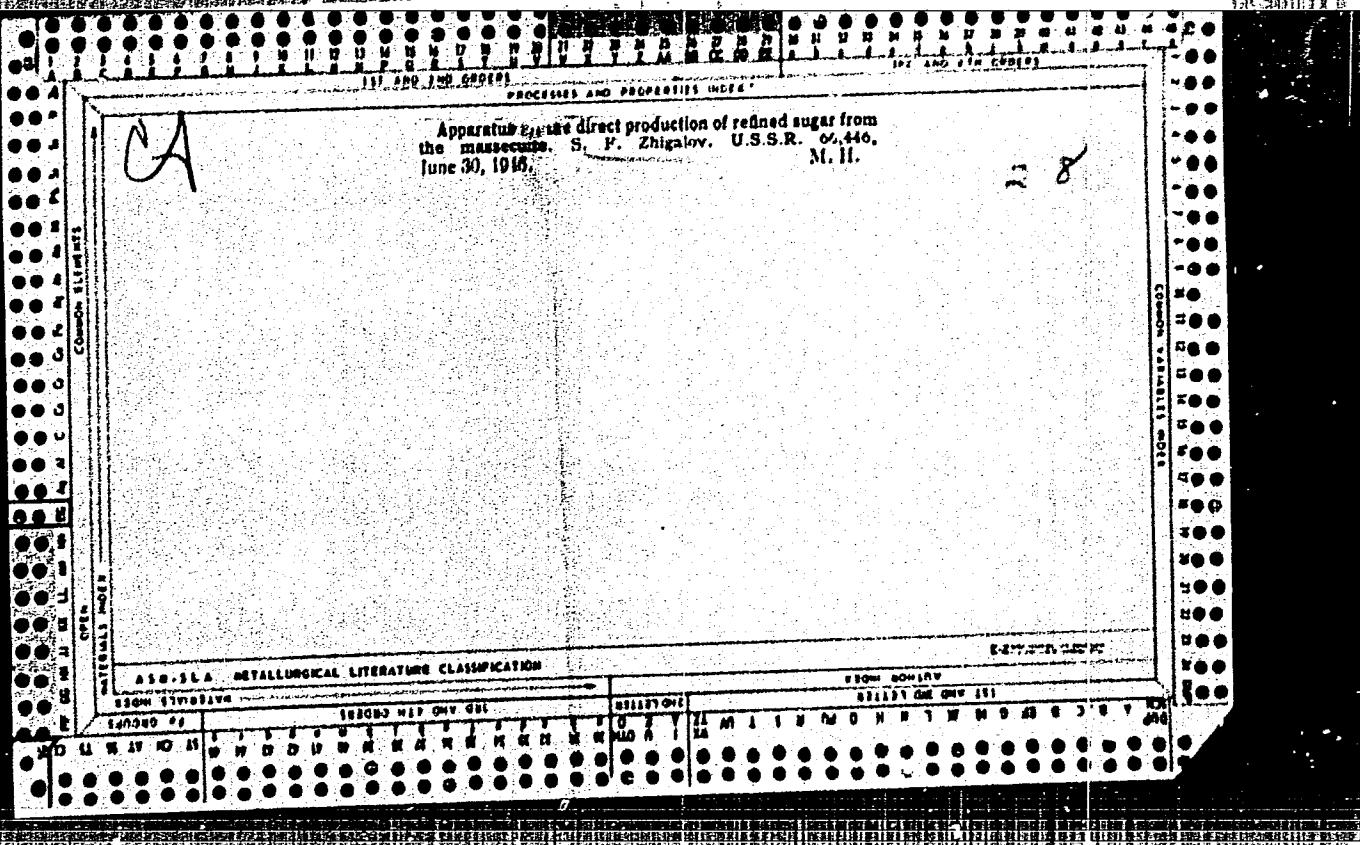
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ZELIKMAN, I.F., professor; DEMCHINSKIY, F.A., inzhener; ZHIGALOV, S.P.,  
professor, retsenzent: P'YANKOV, G.A., inzhener, redaktor; MASLOVA,  
Ye.F., redaktor; DUBOVKINA, N.A., tekhnicheskij redaktor

[Lump sugar production] Proizvodstvo pressovannogo sakhara-rafinada.  
Moskva, Pishchepromisdat, 1954. 298 p.  
(Sugar industry)

471.6740V S.R.  
SOKOLOV, V.I., doktor tekhnicheskikh nauk, professor; SHKOROPAD, D.Ye.,  
inzhener; ZHIGALOV, S.F., doktor tekhnicheskikh nauk, professor,  
retsensent; SHCHEPAIN, S.I., professor, redaktor; KOSEL, B.I.,  
tekhnicheskiy redaktor.

[Automatic and continuous centrifuges] Avtomaticheskie i nepreryvno-  
deistvuyushchie tsentrifugi. Moskva, Gos. nauchno-tekhn. izd-vo ma-  
shinostroit. i sudostroit. lit-ry, 1954. 341 p. (MLRA 7:11)  
(Centrifuges)

ZHIGALOV, S.F.

Theory of the diffusion process. Sakh.prom. 28 no.6:31-33 '54.  
(MIRA 7:11)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.  
(Sugar industry)

"APPROVED FOR RELEASE: 07/19/2001

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CIA-RDP86-00513R002064810002-8"

U S S R .

The theory of the diffusion process. S. P. Zhigalov  
(Technol. Inst. Food Ind., Moscow). *Sodopol'skij Prom.*  
28, No. 8, 19-21(1954).—A discussion of the theory of diffusion  
and a criticism of Dronov's theory is given. V. E. Baikow

*P. M. F.*

"APPROVED FOR RELEASE: 07/19/2001

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APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8"

The effect of hydrodynamic conditions upon the efficiency  
of the diffusion process. S. E. Gubkin and  
V. M. Krasov. Moscow, 1938.

(1938) A detailed analysis of the diffusion process  
using formulas, graphs, and explanations.

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ZHIGALOV, S.P.

Training personnel for the sugar industry at the Moscow Technical  
Institute of the Sugar Industry. Sakh.prem.30 no.3:19-20 Mr '56.  
(MLRA 9:7)

1. MTIIPP

(Moscow—Technical education)

ZHANNESKIY, Gleb Mikhaylovich, prof., doktor tekhn.nauk [deceased];  
ZHIGALOV, S.P., prof., retsenzent; LIPESHKIN, I.P., inzh. retsenzent;  
P'YANKOV, G.A., inzh., retsenzent; KHMEL'NITSKAYA, A.Z., red.  
KISINA, Ye.I., tekhn.red.

[Engineering equipment for sugar beet processing and for refineries]  
Tekhnologicheskoe oborudovanie svakolosakhornykh i rafinadnykh  
zavodov. Moskva, Pishchepromizdat, 1957. 370 p. (MIRA 11:2)  
(Sugar industry--Equipment and supplies)

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ZHIGALOV, Sergey Filippovich; BENIN, G.S., retsenzent; LEPESHKIN, I.P.,  
spetsred.; KHMEL'NITSKAYA, A.Z., red.; DOBUZHINSKAYA, L.V.,  
tekhn.red.

[Operations and equipment in beet sugar manufacture] Protsessy  
i apparaty svoklosakharnogo proizvodstva. Moskva, Pishchepron-  
izdat, 1958. 606 p.  
(Sugar manufacture)

ZHIGALOV, S.F.

Ways of increasing the yield of sugar and automation of beet sugar manufacture. Trudy MTIIP 16:5-29 '60. (MIRA 16:6)

(Sugar manufacture) (Automation)

ZHIGALOV, S.F.

Increasing the thermal efficiency of absorption-type  
refrigerating machines. Trudy MTIPP 16:78-93 '60.  
(MIRA 16:6)  
(Refrigeration and refrigerating machines)

ZHIGALOV, S.F.

Low-cost refrigeration. Trudy MTIPP 16:136-142 '60,  
(MIRA 16:6)  
(Sugar industry)  
(Refrigeration and refrigerating machinery)

TOMBAYEV, N.I.; NESTEROVICH, A.A., inzh., retsenzent; ZHIGALOV, S.F.,  
prof., doktor tekhn. nauk, red.; RYZHOVA, L.P., inzh., red.  
izd-va; DEMKINA, N.F., tekhn. red.

[Centrifuges for the food industry] TSentrifugi pishchevoi pro-  
myshlennosti. Moskva, Mashgiz, 1962. 222 p. (MIRA 16:4)  
(Food machinery) (Centrifuges)

SOKOLOV, Vasiliy Ivanovich, doktor tekhn.nauk, prof.; ZHIGALOV, S.F., doktor tekhn. nauk, prof., retsenzent; MORGULIS, M.L., kand. tekhn. nauk, red.; KARGANOV, V.G., inzh., red.; MODEL', B.I., tekhn. red.

[Modern industrial centrifuges] Sovremennye promyshlennye tsentrifugi. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 451 p.

(MIRA 14:9)

(Centrifuges)

USSR / General Biology. Genetics. Plant Genetics.

B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14423

Author : Zhilgalov, S. A.

Inst : Tomsk University

Title : The Problem of Form Development in Wheat-Wheatgrass Hybrids

Orig Pub : Byul. Sibirskaia botanika (Tomskiy un-t),  
1958, vyp 5, 47-53

Abstract : Of the 150 wild growing varieties of wheat-grass, only 5-6 varieties hybridize with wheat (glaucous wheatgrass, elongated wheatgrass, lowered wheatgrass, sea couchgrass and some races of witchgrass). Mainly glaucous wheatgrass and elongated wheatgrass are used for the development of wheat-wheatgrass hybrids. About 40 percent of success is

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USSR / General Biology. Genetics. Plant Genetics.

B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14423

achieved when wheatgrass is hybridized with wheat. As a rule hybrids are sterile. Individual egg cells of some plants are viable, and when pollinated with viable pollen, yield seeds of  $F_2$  hybrids. The sterility of  $F_1$  hybrids may be overcome by repeated pollination of self-sterile hybrids. A part of  $F_2$  hybrids bear fruit. The fertility becomes completely restored in the subsequent generations. According to quantitative and qualitative indices, a fission of wheat-wheatgrass hybrids occurs simultaneously with the restoration of fertility. Under the usual conditions, the perennial hybrids dominate the yearlings. In further generations,

Card 2/4

USSR / General Biology. Genetics. Plant Genetics.

B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14423

however, the fission in the wheatgrass-wheat hybrids takes place in such a manner that the majority of the hybrids assume yearling form. By hybridization of winter and spring wheat with non-differentiated developmental forms according to the wheatgrass cycle, winter and spring hybrids are obtained. The author states that new varieties of wheat were obtained as a result of hybridization of wheatgrass with wheat. Wheatgrass-wheat hybrids have as a rule a yearling cycle. However, N. V. Tsitsin obtained a No. 2 perennial wheat with 22-25 percent of protein in its seeds, which is resistant to smut, does not become beaten down and shattered, which thrashes

Card 3/4

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USSR / General Biology. Genetics. Plant Genetics. B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14423

satisfactorily and which is winterhardy. --  
S. Ya. Krayevoy

Card 4/4

STABNIKOV, Vsevolod Nikolayevich, prof.; POPOV, Vladimir Dmitriyevich,  
prof.; REND'KO, Fedor Akimovich, inzh.; ZHIGALOV, S.P., doktor  
tekhn.nauk, retsenzent, spetsred.; ROMANKOV, P.G., doktor tekhn.  
nauk, retsenzent; KHMEL'NITSKAYA, A.Z., red.; SOKOLOVA, I.A.,  
tekhn.red.

[Processes and equipment of food industries] Protsessy i apparaty  
pishchevykh proizvodstv. Moskva, Fishchepromizdat, 1959. 584 p.  
(MIRA 13:2)

(Food industry--Equipment and supplies)

ZHIGALOV, V.

Works of the All-Union Peat Institute, (Min. of Agril, RFSR),  
Number 3, 1933, 189 pages. Section on the Study of Peat Beds:  
"A Characterization of Peat Litter from a Physico-Chemical Aspect."  
by Zhigalov, V.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,  
Jan-Feb 1950, Russian bimo per, Moscow/Leningrad (U-5511,  
12 Feb 1954)

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119

## PROCESSES AND PROPERTIES IN

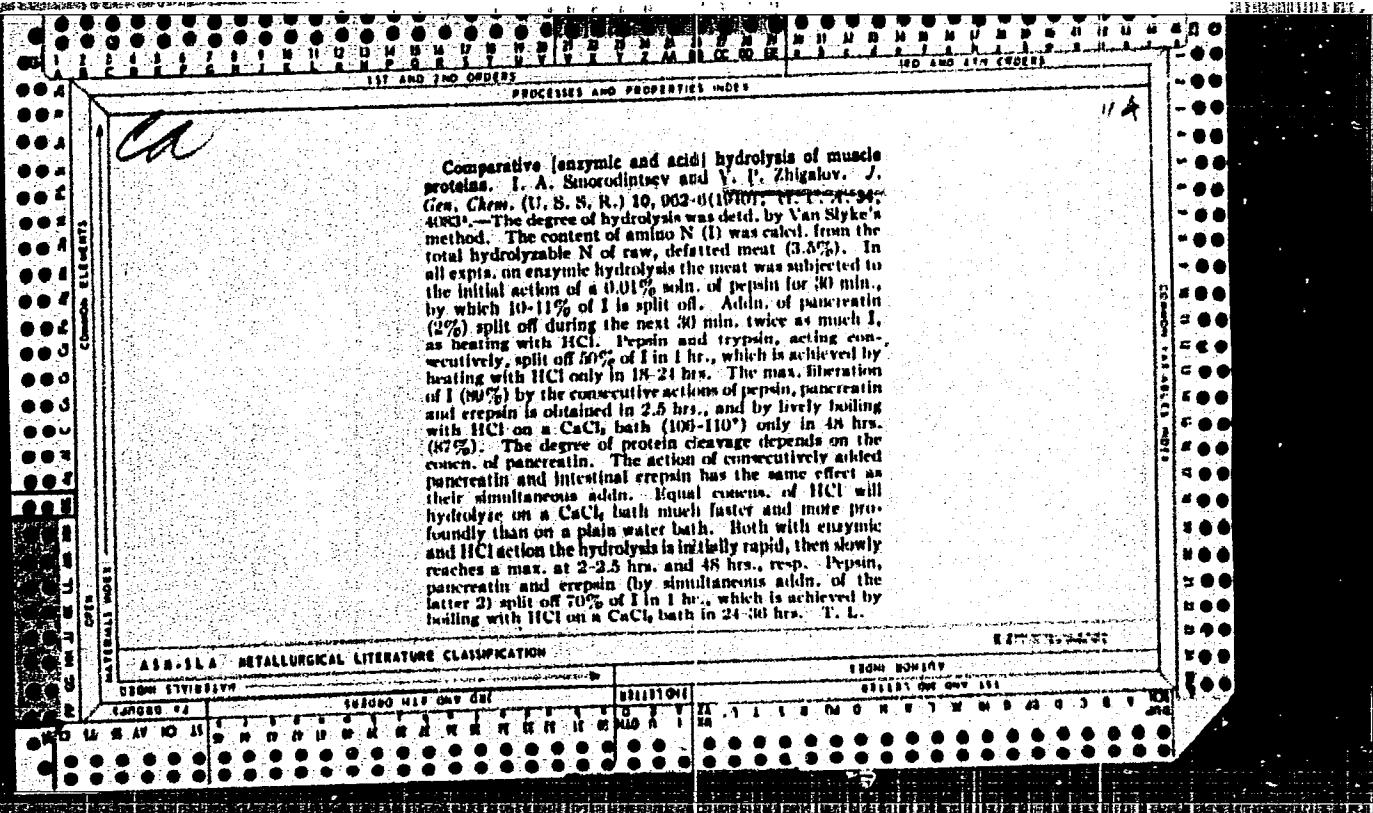
**Enzymic hydrolysis of muscle proteins.** I. A. Smirnov, V. P. Zhigalov and A. O. Gol'dberg. *Izv. Akad. Nauk SSSR, Ser. Biologicheskaya*, No. 1, 1957 (in Russian); *Biochemistry*, 207 (9), 1959. — Pepsin will liberate from beef in the first 3-4 hr. up to 80% of the total amino N if it is capable of splitting by use of 1 part of meat to 8 parts of 0.5-1% pepsin in 0.1 M  $\text{HCl}$ . Hogs-grade meat was digested better than 2nd grade, and swine's gave only half the N. Pancreatin digests boiled meat better, and pepsin digests it less readily, than raw meat. A high degree of N liberation is attained by a 3-hr. hydrolysis with pepsin, and with a subsequent 3 hr. with pancreatin. The pancreatin of swine is stronger than that of cattle. B. Chitoff

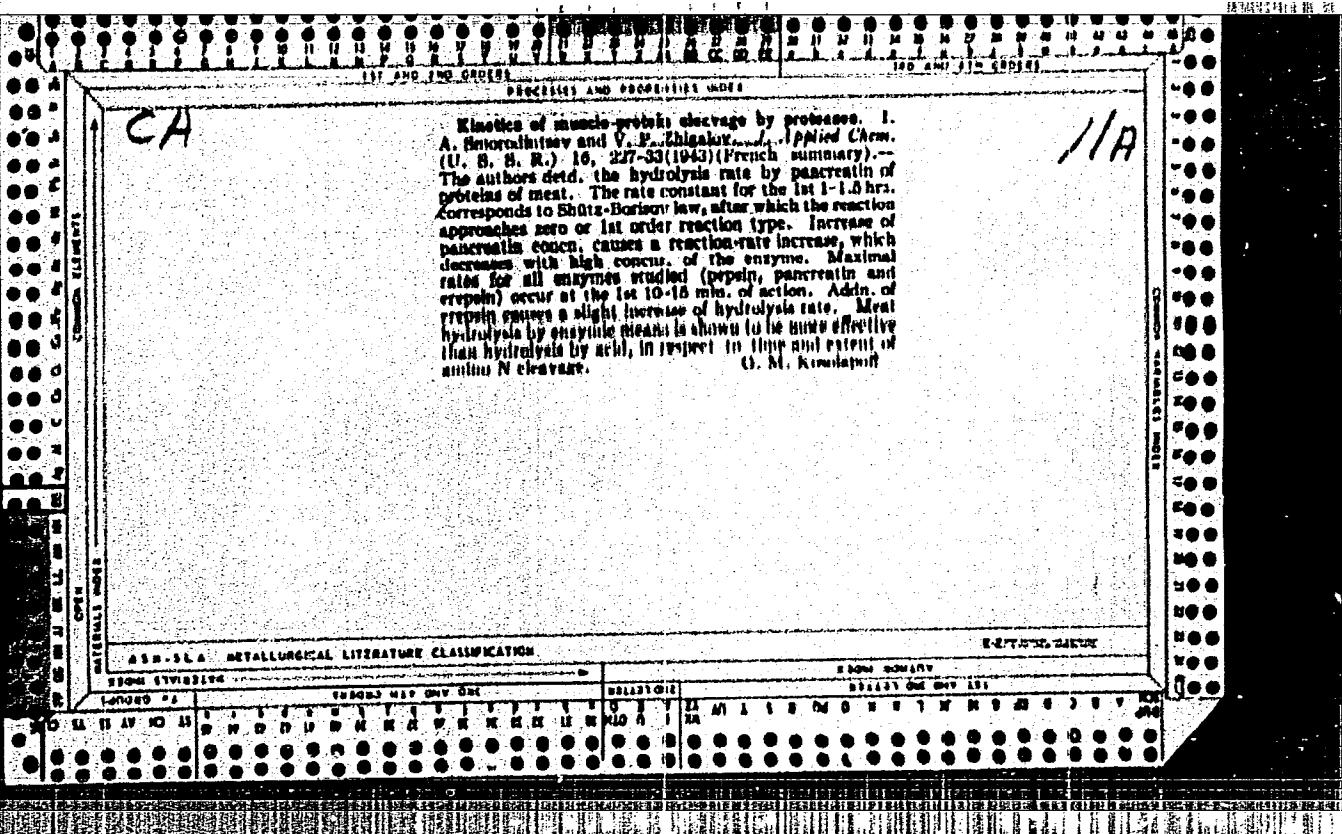
## ASA-3A METALLURGICAL LITERATURE CLASSIFICATION

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**APPROVED FOR RELEASE: 07/19/2001**

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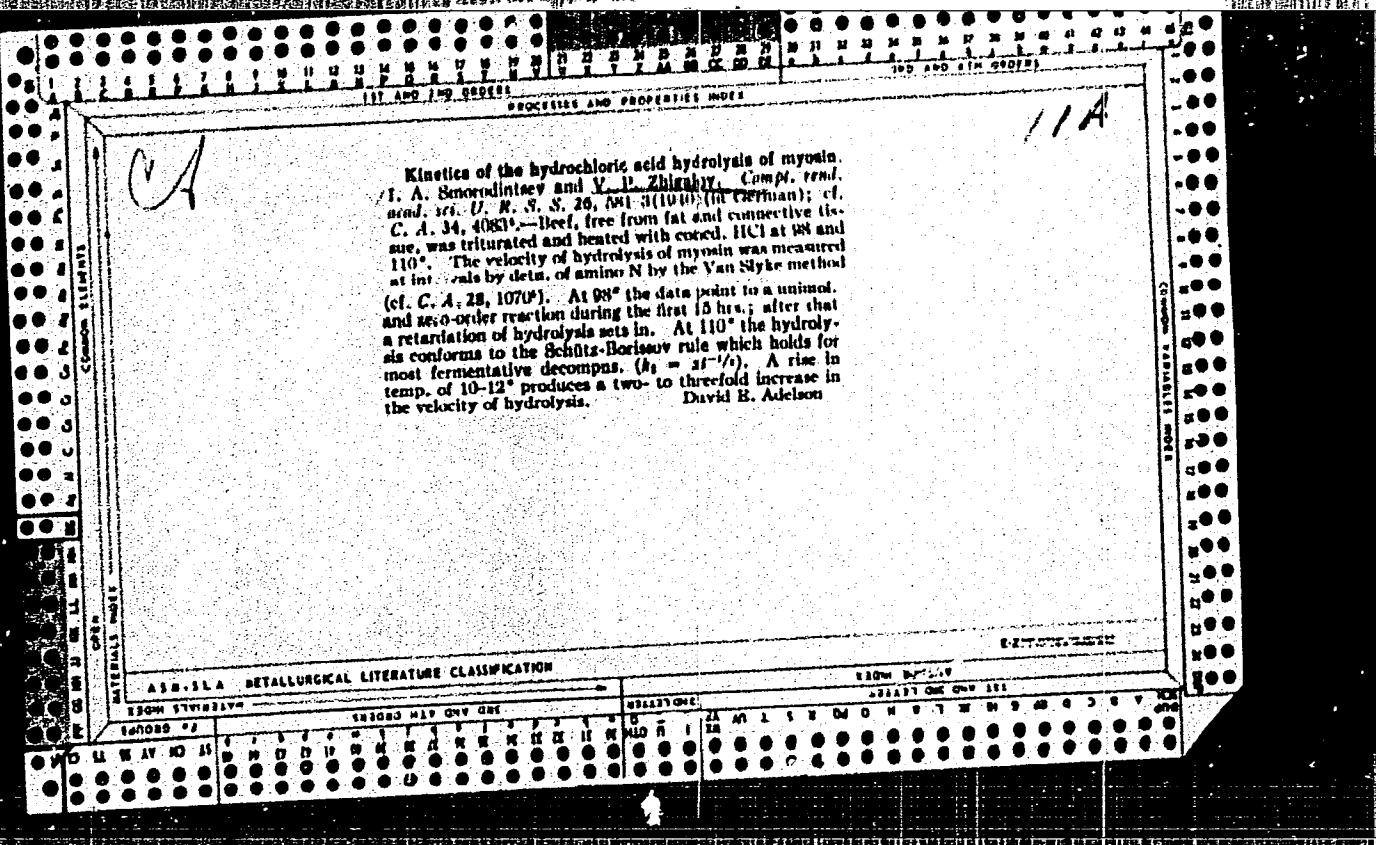
Dissociation of muscle tissue proteins with successive action of proteases. I. A. Smorodintseva, V. P. Zhigalov and L. G. Chernyak. *Zh. (Ukrain.)* 16, No. 1, 123-39 (in Russian) (in English, 139-41) (1940); cf. C. A. 35, 14177. Reduction of pepsin from 1 to 0.1% causes only a 50% reduction of the amino N hydrolysis (I); a preliminary digestion with a 0.01% soln. for 1/2 hr. is sufficient, but necessary, and its highest activity is manifested in this period. Fresh stomach mucosa is a good substitute for dry pepsin. Fresh pancreas is more active than dry pancreatic; the conen. directly affects the succeeding I by the intestinal erepsin; this I is as active as that of the duodenum. Both enzymes can be added together, shortening the digestion time without effect on I. The hydrolysis is several times as rapid and energetic as boiling the proteins with HCl.

## **AMERICA METALLURGICAL LITERATURE CLASSIFICATION**

CA

11A

processes and products  
of meat and gluten. I. A. Smirnov and V. P.  
Zhigalov. J. Gen. Chem. (U.S.S.R.) 10, 125-8 (1940)  
(English summary); cf. C.A. 34, 4083<sup>a</sup>.—Corn gluten  
and meat samples were treated 1 hr. with 10 parts of  
0.05% pepsin at 37° and pH 1.6-2.0; a similar papain  
treatment on like samples was carried out at pH 5.0-6.0.  
The pH's were adjusted to 8.3 and sets of samples were  
hydrolyzed for 3 hrs. with 1% pancreatin (I) and 1% mixt.  
of pancreatin and intestinal trypsin (II). The meats  
treated with pepsin and subsequently with I and II were,  
resp., 77.42 and 95.08% hydrolyzed; like figures with  
pretreatment of meat with papain in place of pepsin were,  
resp., 73.85 and 97.40. Like figures for gluten were:  
pepsin pretreatment 57.84 and 76.57; papain pretreat-  
ment 53.03 and 71.07, resp. Papain and pepsin were  
approx. equal for promoting degradation of protein with  
subsequent use of I or II. Meat proteins were 30-40%  
more hydrolyzed than corn gluten. Splitting with II was  
25-35% more effective on gluten and meat than I.  
M. M. Piskur



CA

/2

Hydrolysis of meat protein and gluten with active proteolytic enzymes and hydrochloric acid. V. P. Zhigalov  
Maximed. Ind. 20, No. 4, 80-8(1940).—The speed of hydrolysis of gluten with 10% HCl was 5-6 times faster than with 7% HCl; with meat the higher concn. of HCl gave 10 times faster hydrolysis. Hydrolysis of the proteins was faster and more economical with pepsin, pancreatin, or erepsin. Gluten was more resistant than meat protein to HCl, pancreatin, and intestinal erepsin.  
M. M. Piskur

ZHIGALOV V. P.

4849. ZHIGALOV V. P. Effect of ascorbic acid and thiamine on pepsin activity Dokladi Akademii Nauk SSSR, Moscow 1949, 69/3 (389-392) Tables 3

Ascorbic acid increases the proteolysis of casein by pepsin in HCl solution at pH 1.3-1.5. In the presence of thiamine, which alone has no effect, this action is further strengthened. In a 3-hour run this effect is clear, but after 24 hours ascorbic acid or thiamine alone causes a slight decrease in pepsin activity, and their mixture causes only a slight increase. In 3 hours the mixture containing only ascorbic acid has lost 2/3 of its unoxidized ascorbic acid, while after 24 hours all is oxidized. When thiamine is added, the mixture after 24 hours still contains 1/3 of its unoxidized ascorbic acid, and even after 96 hours, 10% remains. It is probable that ascorbic acid prevents oxidation of the SH groups in both pepsin and casein, and thus permits increased proteolysis. Thiamine is of value for its anti-oxidant effect. Leicester--San Francisco

SO: Excerpta Medica, Section II Volume III No. 9

ZHIGALOV, V. P.

KASHCHEVSKAIA, L. A., ZHIGALOV, V. P.

Modification of ascorbic acid metabolism in blood transfusion. Klin. med., Moscow 28:8, Aug. 50. p. 90

1. Of the First Therapeutic Clinic (Director--Prof. Ye. N. Tarayev) and of the Experimental Department (Head--V. S. Kisalev), Moscow Oblast Scientific-Research Clinical Institute, Moscow.

CLML 19, 5, Nov., 1950

CA

115

The influence of ascorbic acid and thiamine on pancreatin. V. P. Zhigulev. Doklady Akad. Nauk S.S.R. 71, 709-11 (1950).—Casein, pretreated 3 hrs. with pepsin, was incubated with pancreatin in phosphate buffer (pH 6.8-7.0) with addition of thiamine and ascorbic acid. Either of the latter or both act depressively on the proteolytic activity of the enzyme (decline 8-20% in 3 hrs.). Thiamine alone is less active in this respect. Ascorbic acid in such a system especially at pH 8.2-8.4 is rapidly destroyed (90% loss in 3 hrs.). In this system thiamine does not appear to protect ascorbic acid from oxidative decompr. Probably in the course of this process ascorbic acid serves to convert the active SH groups of pancreatin into inactive disulfide links. G. M. Kosolapoff

ZLATKINA, A.R.; ZHIGALOV, V.P.

Some indices of lipoid metabolism in thyrotoxicosis. Probl. endok. i gorm. 10 no.5:33-37 S-0 '64.

1. 1-ye terapevticheskoye otdeleniye (zav. - doktor med. nauk prof. M.G. Malkina) i biokhimicheskiy otdel Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskego (dir. - kand. med. nauk P.M. Leonenko). (MIRA 18:6)

ZHIGALOV, V.P.

Relationship between vitamin B<sub>1</sub> metabolism and cholinesterase activity in dysentery in children. Pediatrīja no.5:58-61 '61.

(MIRA 14:5)

1. Iz biologicheskogo otdela (zav. - prof. A.N. Kvyatkovskaya) i infektsionnogo otdela (zav. - B.G. Shirvinqt) Nauchno-issledovatel'skogo instituta Ministerstva zdravookhraneniya RSFSR (dir. - doktor med.nauk A.P. Chernikova).

(DYSENTERY) (CHOLINESTERASE) (THIAMINE)

ZHIGALOV, Yu.V.; TISHCHENKO, D.V.

Sulfur of thiolignins. Zhur.prikl.khim. 35 no.1:147-153 Ja '62.  
(MIRA 15:1)

1. Lesotekhnicheskaya akademiya imeni S.M.Kirova.  
(Thiolignin) (Sulfur—Analysis)

ZHIGALOVA, Irina Mikhaylovna; BRENTS, A.D., nauchn. red.;  
SEGAL', Z.G., ved. red.

[Economics of the long-distance transportation of gas]  
Ekonomika dal'nego transporta gaza. Leningrad, Nedra,  
1965. 155 p.  
(MIRA 18:10)

ZHIGALOVA, K.A.

## PHASE I BOOK EXPLORATION Sov/2026

*5(4)*  
Sovetskayay po elektrokhimii. 4th. Moscow. 1956.

Trudy... [abornik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2500 copies printed.  
Sponsoring Agency: Akademicheskaya Nauk SSSR. Otdeleniye Khimicheskikh nauk.

Editorial Board: A.M. Frumkin (Resp. Ed.), Academician, G.A. Yushin, Professor; S.I. Zhdanov (Resp. Secretary), B.M. Karanov, Professor; Ya. M. Kolotyrkin, Doctor of Chemical Sciences; V.Y. Lomov, Ph.D., Professor; Z.A. Solov'yeva, V.V. Stender, Professor; and G.M. Florinovich, Ed. of Publishing House, N.D. Tegrov; Tech. Ed.: T.A. Prusatova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodes, potential and material electrolysis. Abridged discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

CONTENTS:

- All Sov. Acad. V.I. Vernadskogo - Institut sovremennoi khimicheskoy khimii and Analytical Chemistry Inst. V.I. Vernadskogo, Academy of Sciences, USSR).
- Researcher: Yu. I. Vernadskogo - Institute of Physical Chemistry, Academy of Sciences, USSR.
- Through Thin Films of Electrolytes. Diffusion of Oxygen 681
- Discussion [O.S. Kemenbek, Yu. A. Chizhachov, Yu. A. Morin, O.B. Rauchturyan and contributing authors] 689
- PART VIII. ELECTROCHEMICAL PROCESSES IN NONFERROUS METALLURGY 695
- Stender, V.V. (Dnepropetrovsk, Institute of Chemical Technology of Sciences, Academy of Sciences, USSR). Electrolysis as a Means of Controlling

Card 27/36

ZHIGALOVA, K. A.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 22 - 36/47

Authors : Rozenfel'd, I. L., and Zhigalova, K. A.

Title : Rate of oxygen depolarization during atmospheric corrosion of metals

Periodical : Dokl. AN SSSR 99/1, 137-140, Nov 1, 1954

Abstract : Laws governing the increase in rate of oxygen depolarization, as result of convectional transfer of oxygen, were established. Numerous cases of intensified corrosion of metals along the water-line, in zones of periodic wetting and drying and also in conditions of periodic condensation and evaporation of moisture, are discussed. The effect of nonuniform water evaporation at various points of a surface on temperature drops, which lead to change in surface tension of water and stirring of the electrolyte, is explained. Drop in temperature along the vertical and increase in electrolyte density in the upper layer may cause a displacement and thus intensify the access of oxygen. Six references: 2-English; 3-USSR and 1-USA (1919-1953). Graphs.

Institution : Academy of Sciences USSR, Institute of Physical Chemistry

Presented by: Academician A. N. Frumkin, June 10, 1954

"APPROVED FOR RELEASE: 07/19/2001

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SECRET  
REF ID: A6572

APPROVED FOR RELEASE: 07/19/2001

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"APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810002-8

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810002-8"

*ZHIGALOVA, K.A.*

AUTHOR

ROZENFELD, I.L., ZHIGALOVA, K.A.

32-6-13/54

TITLE

Method for Volume Research for Metal Corrosion by Means of the  
Periodical Moistening of the Metal With Electrolyte.  
(Ob'yemnyy metod issledovaniya korrozii metallov pri periodicheskom  
smachivaniii ikh elektrolitami -Russian)

PERIODICAL

Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 687-689 (U.S.S.R.)

ABSTRACT

Received 7/1957

Reviewed 8/1957

It is claimed in this paper that the methods applied for the volume investigation of corrosion are more sensitive than the methods according to weight and are therefore more often applied in laboratories. Hitherto it has, however, not been possible to construct a suitable apparatus based upon this principle. The apparatus suggested by STEKEL and WHITON do not permit carrying out experiments at water vapor densities which correspond to relatively low moisture denominators. In this paper a device is suggested which permits the kinetic research of the corrosion process according to the quantity of the absorbed oxygen at any steam density. A device constructed on the basis of this principle is described here, which consists of two glass containers connected by means of a horizontal manometer tube. In the interior of this tube an electrolyte rod is fitted, which is able to shift either to the right or to the left. One of the containers contains a float with a guide which can be moved only in an upward or downward direction. The steel objects to be investigated are fastened on to the float. The shifting of the electrolyte rod in the manometer tube indicate the oxygen absorbed by the examined object. A solution

Card 1/2

Method for Volume Research for Metal Corrosion by Means  
of the Periodical Moishtening of the Metals With Elecetrolyte. 32-6-13/54

of 0,5 -nth sodium chloride serves as moistening liquid for the objects to be examined (which effects oxygen absorption). The apparatus described serves for the investigation of the corrosion process at relative moistness, which is effected by the moistening solution contained in the reaction container, as well as in the case of any relative moisture, which is obtained by soaking the object to be examined by means of pressure exercised on the float.  
(With 3 illustrations).

ASSOCIATION  
PRESENTED BY  
SUBMITTED  
AVAILABLE  
Card 2/2

Library of Congress

ZHIGALOVA, K.A., Cand Chem Sci — (diss) "Study of the mechanism  
of metal <sup>under</sup> corrosion ~~in~~ periodic moistening." Mos, 1959. 11 pp (Acad Sci USSR.  
Inst of Physical Chemistry). 150 copies (KL,38-59, 114)

14

ROZENFELD, I. L.; VASHKOV, O. I.; ZHIGALOVA, K. A.

"Electrochemical processes on metals corroding in sea water."

report submitted for the Intl Cong on Fculing & Marine Corrosion, Cannes,  
8-13 Jun 64.

Academy of Sciences, USSR.

L 28531-66	EWP(1)/EWT(m)/I/EWP(t)/ETI	IJP(c)	RM/HW/JD/NB/GD
ACC NR:	AT6013801	(N)	SOURCE CODE: UR/0000/65/000/000/0220/0241
AUTHOR:	<u>Kozenfel'd, I. L.</u> ; <u>Zhilalova, K. A.</u> ; <u>Bur'yanenko, V. N.</u>		
ORG:	none		
TITLE:	Physico-chemical and protective properties of polymer film-based <u>paints</u> and lacquers		
SOURCE:	Korroziya metallov i splavov (Corrosion of metals and alloys), no. 2. Moscow, Izd-vo Metallurgiya, 1965, 220-241		
TOPIC TAGS:	alkyd resin, vinyl chloride, vinylidene chloride, nitrocellulose, polymer, copolymer, electrolyte, specialized coating, permeability measurement/ FL-02 alkyd resin, SVKh-40 vinyl chloride-vinylidene chloride copolymer, NTs nitro-cellulose		
ABSTRACT:	The available information on the mechanism of the protective properties of polymeric <u>coatings</u> is extremely limited despite the large number of studies on this subject. To fill this gap, and considering that valuable data on these properties can be obtained by investigating the penetrability of electrolytes through free films, the authors investigated the ionic permeability of various nonpigmented films and their electric properties of electrolytes. The specimens used were varnish films obtained on the basis of alkyd resin (FL-02); vinyl chloride-vinylidene chloride copolymer (SVKh-40) <sup>b</sup> and nitrocellulose, deposited with a spray gun on a material of specific viscosity. Ohmic resistance and capacitance were measured in the presence of alter-		
Card	1/2		

L 28531-66

ACC NR. AT6013801

nating current with voltage of 20-25 mv and frequency of 500 to 20,000 cps, while the diffusion potentials and the current passing through the film on the application of a constant potential were determined in glass cells consisting of two halves filled with 0.5N NaCl solution between which the investigated film was placed: the rate of motion of ions across the film, considered as a semipermeable membrane, can be determined according to the intensity of the current passing through the electrolytic cell on the application of a specific potential difference between two electrodes. It was found that the films investigated differ in the nature of their electrolyte conductivity: for nitrocellulose and alkyd resin-based films penetration of the electrolyte occurs via the pores, while for the copolymer SVKh-40 it occurs via the material itself. Moisture absorption by a film on metals and its permeability to an electrolyte can be determined from the magnitude and pattern of variation of its capacitance and ohmic resistance; thus, nitrocellulose is the most porous of the coatings investigated and hence its capacitance is the highest while its ohmic resistance is the lowest: this also may be used as a criterion for predicting the future behavior of the investigated material under specified conditions. Orig. art. has: 14 figures, 6 tables and 8 formulas.

SUB CODE: 1E 11, 07 / SUMM DATE: 19Jul65 / ORIG REF: 023 / OTH REF: 014

Card 2/2 C

S/123/59/000/010/038/068  
A004/A001.

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 10, p. 121,  
# 38105.

AUTHORS: Rozenfel'd, I. L., Zhilalova, K. A.

TITLE: On the Corrosion Mechanism of Metals Which are Periodically Wetted  
With Electrolytes

PERIODICAL: Tr. Vses. soveshchaniya po bor'be s morsk. korroziyey metallov.  
1956, Baku, Azerneft'neshr, 1958, pp. 57-81

TEXT: Bibliographic entry

Card 1/1

83641

S/081/60/000/015/008/014

A006/A001

18.8300

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 15, p. 82, # 60701

AUTHORS: Rozenfel'd, I.L., Pavlutskaya, T.I., Zhilalova, K.A., Akimova, T.I.

TITLE: Methods of Electrochemical and Corrosion Investigations in Thin  
Electrolyte Layers 18

PERIODICAL: Tr. In-ta fiz. khimii AN SSSR, 1959, No. 7, pp. 22-40

TEXT: Information is given on methods and devices used to investigate the electrochemical and corrosion behavior of metals under thin electrolyte layers. It is exemplified on Cu in 0.1 n. solution of NaCl, Na<sub>2</sub>SO<sub>4</sub> and HCl and on Fe in 0.1 n. NaCl that a reduced thickness of the electrolyte layer entails an acceleration of the cathode process on account of facilitated O<sub>2</sub> reduction. A noticeable inhibition of the anode process was not observed. The authors investigated the nature of potential distribution, current density and resistivity on the electrode surfaces and the correlation of the polarization and ohmic resistivity R (ohm.). The corrosion process under thin electrolyte layers does almost not depend on R(ohm) and is mainly determined by electrode polarization, principally of the cathode. It was established that higher corrosion

Card 1/2

ZHIGALOVA, K. A.

## PAGE 1 BOOK EXTRAS

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Investigation of Corrosion of Metals. (Vol. I) 51. Morris Society of Petrochemistry, New International Symposium on Corrosion of Metals [See, Vol. 51; New Materials and Technologies for Corrosion Control]. Moscow, Izdatel. Akad. Nauk SSSR, 1979. This Study, pp. 71. (Series) This Study, pp. 71. (Series) Moscow also inserted. 3,000 copies printed.

Berg, R., R. D. Smoot, Doctor of Chemistry, Researcher; Ed. of Publishing House, R. G. Agreene, Ph.D., Ed., G. A. Ladd, Dr. V. Zelazewski, Metallurgical Society, R. M. Tammann, A. V. Polubarnov, Candidate of Chemistry, and V. V. Kostyukov, Candidate of Chemistry.

PURPOSE: This collection of articles is intended for scientific workers at research institutions and technical personnel of plant laboratories.

CONTENTS: The articles included in this collection deal basically with methods of corrosion investigation which have not yet been published in Soviet periodicals.

Interest lies not of definite interest for studying corrosion processes. A wide range of problems is covered. In addition to the methods discussed, the articles provide experimental data which make possible full utilization of each individual method. No personalities are mentioned. References concerning each article.

Barsh, G. P., N. M. Moshkovskiy, Yu. I. Rybachinskaya, and E. I. Zemtsova. Electrochemical Method for Investigating Anodic Corrosion of Metals. 11

Bogolyubov, I. I., G. I. Pashchenko, S. A. Slobodkin, and T. I. Afanova. Methods of Electrochemical and Corrosion Investigations in Thin Layers. 22

Bogolyubov, I. I., and I. A. Bezdelyuk. Laboratory Methods for Investigation of Corrosive Processes. 11

Bogolyubov, I. I., N. M. Moshkovskiy, and I. P. Tsvetkov. A Method for Determining Residual Polarization Curves by Means of Oscillotic Polarization. 31

Bogolyubov, I. I., and N. M. Moshkovskiy. Electrochemical Method for the Rapid Evaluation of the Corrosion Resistance of Metals. 4

Bogolyubov, I. I., Investigation of Means of Reducing or Slowing Down Changes in the Microhardness of Steels during Corrosion. 60

Bogolyubov, I. I., V. N. Pashchenko, and G. E. Matrosova. Method for Investigating the Corrosion and Electrocatalytic Behavior of Metals Under Stress. 6

Bogolyubov, I. I., and I. A. Bezdelyuk. Use of the Resistance-Capacitance Method for Investigating the Behavior of Protective Films During the Corrosion of Metals Under Stress. 70

Card 26

18(7)

AUTHORS: Rozenfel'd, I. L., Zhigalova, K. A.

TITLE: Methodology of Investigating the Corrosion of Metals Under Condensation Conditions (Metodika issledovaniya korrozii metallov v usloviyakh kondensatsii)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2,  
pp 172 - 174 (USSR)

ABSTRACT: The irregular distribution of the corrosion is characteristic of corrosion during condensation. This is explained by the fact that with all technical metals condensation is predominantly in the form of droplets (Ref 1). In the investigation of these corrosion processes the amount of condensate has to be considered. At a certain relative humidity the water vapor content of the air does not vary in proportion with temperature variation, so that at lower (5-10°) and higher temperatures (35-40°) different quantities of water will condense due to temperature variation. A glass apparatus of 300 cu.cm capacity (Fig 1) was designed by means of which it is possible to determine the quantity of water condensed at a certain temperature reduction and the corrosion. It was

Card 1/2

SOV/32-25-2-24/76

Methodology of Investigating the Corrosion of Metals Under SOV/32-25-2-24/78  
Condensation Conditions

found that the corrosion is to a great extent dependent on the quantity of water condenser (Fig 2). A maximum is to be found at 2.5-3 g water per cu.dm. By drying and repeatedly wetting the corrosion spot, corrosion may be increased greatly (Fig 3). Experiments with air containing  $\text{SO}_2$  (0.01%) or with a 0.5 n NaCl solution sprayed onto low-carbon steel St.3 showed that the corrosion is 6-9 times as strong as in the case of pure air (Fig 3). There are 3 figures and 2 Soviet references.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

Card 2/2

ZHIGALOVA, K. A.

Sovetskaniye po elektrokhimi. 4th, Moscow, 1956.  
 Trudy... [laboratory] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo Akad. Nauk SSSR, 1959. 860 p. Errata also inserted. 2500 copies printed.  
 Sponsoring Agency: Akademicheskii Otdeleniye Nauk SSSR, Otdeleniye Khimicheskikh Nauk.

Editorial Board: A. M. Prusikin (Rep., Ed.) Academician, G. A. Yesin, Professor; S. I. Zhdanov (Responsible Secretary), B. M. Kabanov, Professor; Professor; S. I. Zhdanov (Rep. Secretary); B. M. Kabanov, Professor; V. V. Lazov, Professor; M. M. Kolyorzin, Doctor of Chemical Sciences; V. V. Shender, Professor; Iakovlev, Professor; Z. A. Solov'eva, V. V. Shender, Professor; M. M. Florinovich, Ed. of Publishing House; N. O. Tsvetova, Tech. Ed.; T. A. Prusakova.

PURPOSE: This book is intended for chemists and electrical engineers, physicochemists, metallurgists and researchers interested in various aspects of electrochemistry.

CONTENTS: The book contains 127 of the 136 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences USSR. The collection pertains to different branches of electrochemical kinetics, double layer theory and industrial electrolytic processes. In several discussions are given at the end of each division. Abbreviated discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

Dobrikov, Yu. P. (Institut Fizikal'noi i analiticheskoy khimii AN SSSR), V. I. Vermaistro (Institute of Geochemistry and Analytical Chemistry, Izhevsk), V. I. Vermaistro, Academy of Sciences USSR, Diffusion of Electrolytes and the Polarographic Method. 677

Egashvili, T. T., and K. A. Zhigalova (Institute of Physical Chemistry, Academy of Sciences, USSR), Diffusion of Oxygen in Plasmas of Electrolytes Through Thin Films. 684

Discussion [O. S. Kostyuk, Yu. A. Chizmadzhev, Yu. A. Yerov]. 689  
 O. S. Kostyuk and contributing authors. 689

PART VIII. ELECTROCHEMICAL PROCESSES IN NONFERROUS METALLURGY 695

Shender, V. I. (Dnepropetrovsk Institute of Chemical Technology (Come New Processes of Hydroelectric Metallurgy)) 697  
 Izent, V. E. (Birokhimika, Institute of Chemistry, Academy of Sciences, Krasnodar). Electrolysis as a Means of Combining, 697

Card 27/34

Several Metallurgical and Chemical Production Processes (Come New Processes of Hydroelectric Metallurgy) 697

Karabut, M. T. (Karakalpak State University, Academy of Sciences, Karabut). Some Problems of Alumina Metallurgy - Concentration of Metals With Aluminas. 704

Dobrikov, Yu. P., B. E. Markov, I. D. Pancheiko, Yu. B. Dzhurjan, and A. A. Salnikov (Institute of General and Inorganic Chemistry, Academy of Sciences, USSR). Electropolymerization of Acrylic Acid and Polyacrylic Acid. 710

Glibikov, D. M., and V. N. Korytina (Institute of Metallurgy, Academy of Sciences, USSR). Investigation of the Potentials and Anodic Polarization of Metallic Oxides and Their Alloys. 715

Izidor'ev, V. I., and L. A. Baumkin (Dnepropetrovsk Institute of Nonferrous Metallurgy, All-Union Scientific Research Institute of Rangnickel and its Alloys). 721

Card 28/34

Features of the Anode Process During the Purification of a Copper-Nickel Anode in a Sulfate-Chloride Electrolyte. 730  
 Zarutskiy, S. A., I. G. Zarutskiy (Detsvet), and I. A. Bogdanova. 730  
 Anodic Behavior of Rangnickel and its Alloys. 731

ROZENFEL'D, I.L.; PAVLUTSKAYA, T.I.; ZHIGALOVA, K.A.; AKIMOVA, T.I.

Methods of electrochemical and corrosion investigations in  
thin layers of electrolytes. Trudy Inst.fiz.khim. no.7:22-40  
'59. (MIRA 13:5)

(Electrochemical analysis)  
(Electrolytes--Testing)

ZHIGALOV, L.N.; ZHIGALOVA, N.N.

Distribution of magnetic activity in a narrow longitudinal  
sector of the eastern Arctic. Geomag. i aer. 1 no.1:67-72  
Ja-F '61. (MIRA 14:7)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy  
institut.  
(Arctic regions—Magnetic storms)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8

ZHIGALOVA, N.N.; OL', A.I.

High latitude baylike disturbances of the geomagnetic field.  
Probl.Arkt.i Antarkt. no.15:69-73 '64. (MIRA 17:4)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8"

3,1800

8/035/61/000/010/018/034  
A001/A101AUTHORS: Zhilalova, N.N., Zhigalov, L.N.

TITLE: Geoactive longitudes of the Sun

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 10, 1961, 58, abstract 10A418 ("Solnechnyye dannyye", 1960, no. 6, 71-76)

TEXT: The authors plotted the curves of longitude distribution of some indices of solar activity, of the magnetic disturbance index, and of number of days with storms and days with absorption in the ionosphere (>8 hours per day). The period from 1955 to 1959 was analyzed. Active longitudes were revealed and their significance was checked by means of criterion of correspondence  $\chi^2$  and criterion t. The authors arrived at the conclusion that active longitudes on the Sun, manifesting in different indices of solar activity, as a rule are not accidental and approximately coincide. Geoactive longitudes are expressed weaker. In the maximum of solar activity, helioactive longitudes are accompanied by increasing geomagnetic activity. The number of such longitudes decreases with moving away from the maximum, and by 1959 helioactive longitudes corresponded to a reduction of geomagnetic activity. There are 5 references.

T. Mandrykina

[Abstracter's note: Complete translation]  
Card 1/1

VA

29725

S/169/61/000/098/046/053  
A006/A101

3,9110 (1121,1982)

AUTHORS: Zhilalov, L.N., Zhigalova, N.N.

TITLE: On the distribution of magnetic activity in the narrow section of East-Arctic longitudes

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 8, 1961, 36, abstract 80252 ("Geomagnetizm i aeronomiya", 1961, v. 1, no. 1, 67 - 72)

TEXT: The authors analyze the nature of magnetic disturbance in the narrow section of East-Arctic longitudes ( $170 - 230^{\circ}$  eastern longitude) from observation materials of drifting stations "Severnnyy Polus" (North Pole), and the Wellen and Cape Schmidt magnetic observatories. The results obtained confirm the spiralshaped distribution of magnetic disturbance maxima during the morning, day, evening and night hours. It is mentioned that the previously assumed second zone of higher magnetic disturbances in the Arctic circumpolar zone does only exist during the summer and the early hours of the local geomagnetic day. It decreases during the winter. *X*

The authors' summary

[Abstracter's note: Complete translation]

Card 1/1

KULIKOV, V.O.; BORNATSKIY, I.I.; ZARUBIN, N.G.; DOROFEEV, G.A.;  
KALUZHISKIY, Ye.A.; KAZAKOV, A.A.; KOVAL', R.F.; KORNEVA, N.K.;  
TRET'YAKOV, Ye.V.; TRUNOV, Ye.A.; Prinimali uchastiye: ANDREYEV, V.L.;  
GORDIYENKO, V.V.; GRINEVICH, I.P.; GUBAR', V.F.; DOLINENKO, V.I.;  
ZHERNOVSKIY, V.S.; ZHIGALOVA, Z.I.; KOMOV, N.G.; KURAPIN, B.S.;  
OLESHKEVICH, T.I.; PRIKHOZHENKO, Ye.

Mastering the operations of 650- and 900-ton (mega - gram) capacity  
open-hearth furnaces at the Il'ich metallurgical plant. Stal' 25  
no.8:805-807 S '65.

(MIRA 18:9)

1. DONNIICHERMET i Zhdanovskiy metallurgicheskiy zavod imeni Il'icha.

ZHIGALOVSKAYA, T. N.

"Determination of Several Rare-Earth Elements by Emission Spectra."  
Cand Phys-Math Sci, Inst of Geology, Acad Sci Tadzhik SSR, Stalingrad, 1954.  
(KL, No 8, 1955)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (14)

ZHIGALOVSKAYA, T.N.

Absolute sensitivity in the determination of rare earth elements.  
Izv. AN SSSR. Ser. fiz. 19 no.1:115 Ja.-P '55. (MIRA 8:9)

1. Geologicheskiy institut Akademii nauk Tadzhikskoy SSR  
(Spectrum analysis) (Spectrometer)

S/049/59/000/12/024/027  
E131/E391

AUTHORS: Balabanova, V.N., Zhigalovskaya, T.N. and Maleyev, M.N.  
TITLE: Effect of the Air Temperature on the Action of Silver Iodide Particles When Used as the Nucleus for Crystallization

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 12, pp 1889 - 1890 (USSR)

ABSTRACT: The purpose of this work was to clarify the relationship between the crystallization power of the particles of silver iodide and the temperature of the surrounding air. The experiments were carried out in a large container where the air temperature was varied from -10 to 100 °C. ✓ Particles of silver iodide were injected in the form of a mist. The action of the mist was determined in relation to the amount of ice crystals formed at the temperature of -10 °C. Table 1 gives the results obtained and shows the number of ice crystals (n) per 1 cm<sup>3</sup> produced after 1, 15 and 30 min at mist temperatures of 20 and 60 °C. It was found that the number of ice crystals decreased the longer the mist was kept in the container. The relationship between the number of ice crystals and the

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E131/E391

Effect of the Air Temperature on the Action of Silver Iodide  
Particles When Used as the Nucleus for Crystallization

temperature was affected by the following two factors:

- 1) influence of the temperature on the action of the silver-iodide particles when used as the nucleus for crystallization;
- 2) influence of the temperature on the rate of deposition of silver iodide particles on the walls of the container during the various periods of the experiments (Tables 2 and 3).

There are 4 tables and 4 references, 1 of which is Soviet and 3 are English.

ASSOCIATION: Akademiya nauk SSSR Institut prikladnoy geofiziki  
(Ac.Sc.USSR, Institute of Applied Geophysics)

SUBMITTED: July 10, 1958

Card 2/2

ZHIGALOVSKAYA, T.N.; BALABANOVA, V.N.

Studying the dispersal of silver iodide smoke in a closed container. Izv.AN SSSR.Ser.geofiz. no.6:903-905 Je '60.  
(MIRA 13:6)

1. Akademiya nauk SSSR. Institut prikladnoy geofiziki.  
(Silver iodide) (Aerosols)

BALABANOVA, V.N.; MALEYEV, M.N.; ZHIGALOVSKAYA, T.N.

Rate of silver iodide particle disintegration brought about by  
thermal dispersion methods. Izv.AN SSSR,Ser.geofiz. no.9:  
1413-1416 S '60. (MIRA 13:9)

1. Akademiya nauk SSSR, Institut prikladnoy geofiziki.  
(Atmospheric nucleation) (Silver iodide)

26.1420

b117  
S/169/62/000/009/093/120  
D228/D307

AUTHORS: Balabanova, V. N. and Zhigalovskaya, T. N.

TITLE: Study of the dispersion of silver iodide aerosol

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 73, abstract 9B449 (In collection: Issled. Oblakov, osadkov i grozovogo elektrichestva, M., AN SSSR, 1961, 36-37)

TEXT: A report is given of the results of measuring the size of silver iodide aerosol particles, formed on thermal dispersion. Silver iodide powder was dispersed in an electric arc. The tests were carried out in thermal pressure chambers with a volume of 14 m<sup>3</sup>. Curves of the counted aerosol particle distribution were obtained; in their form they are close to normal logarithmic curves, with a maximum in the diameter region of about 0.11 μ. [Abstracter's note: Complete translation.] ✓

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"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8

BALABANOVA, V.N.; ZHIGALOVSKAYA, T.N.

Production of stable fogs under laboratory conditions. Trudy  
Vysokogor. geofiz. inst. AN SSSR 2:93-98 '61. (MIRA 14:12)  
(Aerosols)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8"

BALABANOVA, V.N.; ZHIGALOVSKAYA, T.N.

Dispersiveness of the silver iodide aerosol. Izv. AN SSSR.  
Ser. geofiz. no.3:443-446 Mr '62. (MIRA 15:2)

1. AN SSSR, Institut prikladnoy geofiziki.  
(Silver iodide)  
(Aerosols)

BALABANOVA, V.N.; ZHIGALOVSKAYA, T.N.

Crystallization of water superfrozen by silver iodide. Izv. AN  
SSSR. Ser. geofiz. no. 10:1450-1455 O '62. (MIRA 16:2)  
(Silver iodide) (Weather control)

VOINOV, A., prof.; MADALINSKIY, G., inzh.; ZHIGAL'SKIY, A., inzh.

House with walls made of asbestos cement panels. Zhil. stroi.  
no. 7:18-19 Jl '61. (MIRA 14:8)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury  
SSSR (for Voinov).  
(Asbestos cement) (Minsk--Apartment houses)

ZHIGAL'SKIY, G.P.; POTEMKIN, V.V.

Noises in cyclic magnetic reversal of ferrites at low temperatures.  
Zhur. tekhn. fiz. 33 no.10:1274-1280 0 '63. (MIRA 16:11)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8

ZHIGAL'TSEV, A.A.

Comparison of the average spectra at various stations for deep and  
shallow earthquakes from data of frequency selective seismic stations.  
Trudy Inst. fiz. Zem. no.25:77-87 '62. (MIRA 15:11)  
(Seismometry)

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CIA-RDP86-00513R002064810002-8"

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8

ZHIGAL'TSEV, A.A.

Dynamic characteristics of body waves. Trudy Inst. fiz. Zem.  
no.25:325-338 '62.

(Seismic waves)

(MIRA 15:11)

APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R002064810002-8"

ALEKSEYEV, I.I., agronom po zashchite rasteniy (Tiraspol'skiy rayon,  
Moldavskoy SSR); ZHIGAL'TSEVA, M.I., kand.sel'skokhoz.nauk  
(Tiraspol'skiy rayon, Moldavskoy SSR); YAROSHENKO, Yu.A.

On Suvorov State Demonstration Farm, Zashch.rast.ot vned.i bol.  
7 no.613-5 Je '62. (MIRA 15:12)

1. Zaveduyushchiy punktom signalizatsii i zashchity rasteniy  
Tiraspol'skogo rayona, Moldavskoy SSR (for Yaroshenko).  
(Tiraspol' District--Plants, Protection of)

ZHIGAL'TSEVA, M.I.; TERESHKO, L.I.

Cicads as dangerous orchard pests. Priroda 54 no.10:62-65 '65.  
1. Kishinevskiy universitet. (MIRA 18:10)

ZHIGAL'TSEVA, M. I.: Master Agric Sci (diss) -- "The complex of leaf-rollers, pests of fruit crops in Moldavia, and the principles of methods of combating them". Leningrad, 1959. 20 pp (Min Agric USSR, Leningrad Agric Inst), 120 copies (KL, No 11, 1959, 121)

ZHIGAL'TSEVA, M.I. [deceased]; ANISIMOVA, L.A.

Physiological age of butterflies attracted to different sources  
of light. Nauch. dokl. vys. shkoly; biol. nauki no. 1:24-26 1966.  
(MIRA 19:1)

1. Rekomendvana kafedroy zoologii Kishinevskogo gosudarstvennogo  
universiteta. Submitted June 30, 1964.

ZHIGAL'TSEVA, M.I., Botsent; TERESHKO, L.I., assistant

The cicada *Tibicen haematoches*. Zashch. rast. ot vred. i bol.  
7 no. 9; 19 S '62. (MIRA 16;8)

1. Kishinevskiy universitet.  
(Moldavia—Cicada—Extermination)

ZHIGAL'TSEVA, M.I.

USSR/General and Special Zoology. Insects. Injurious Insects and Ticks. Pests of Fruit and Berry Crops

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49654

Author : Zotsenko L.N., Zhigal'tseva M.I.

Inst : All-Union Institute of Plant Protection, Moldavian Station

Title : The Use of Airplanes in the Control of the Lesser Apple Worm

Orig Pub : Sb. tr. Mold. st. Vses. in-ta zashchity rast., 1957, vyp. 2, 107-114

Abstract : The moths of the lesser apple worm are resistant to chlororganic preparations. The moths of the Rosaceae, the golden-variegated and bud leaf-rollers, pierid butterfly, silkworms and Arctiidae are less resistant to them. The moths of the lesser apple worm perished rapidly under the effect of phosphororganic preparations. In 1955, the beginning of the emergence of the lesser apple

Card : 1/3

ZHIGAL'TSEVA, M.I., kand.sel'skokhoz.nauk, agronom po zashchite rasteniy

Plant protection in the seven-year plan of a collective farm.  
Zashch. rast. ot vred. i bol. 4 no.5:5-7 S-0 '59. (MIRA 16:1)

1. Kolkhoz imeni 1 Maya, Moldavskoy SSR.  
(Moldavia--Plants, Protection of)